CLAIMS

What is claimed is:

| 1 | 1. A method comprising: |
|---|---|
| 2 | creating a session-based ad-hoc group (SBG) within a well-known ad-hoc group |
| 3 | (WKG) for impromptu interactions among unrelated mobile users, the WKG having a |
| 4 | WKG network configuration and a set of WKG interaction protocols, the SBG having |
| 5 | SBG network configuration and a set of SBG interaction protocols; and |
| 6 | advertising information pertaining to the SBG on the WKG. |
| 1 | 2. The method of claim 1 wherein creating the SBG comprises |
| 2 | obtaining the WKG network configuration and the set of WKG interaction |
| 3 | protocols. |
| 1 | 3. The method of claim 2 wherein obtaining the WKG network |
| 2 | configuration and the set of WKG interaction protocols comprises obtaining one of a |
| 3 | pre-configuration on a retail device, a downloadable client software, and a public |
| 4 | advertisement. |
| 1 | 4. The method of claim 1 wherein the WKG creating one of an open WKG |
| 2 | and a restricted WKG, the open WKG having no access control, the restricted WKG |
| 3 | having an access control to selected users. |
| 1 | 5. The method of claim 1 wherein creating the SBG comprises: |
| 2 | creating one of an open SBG and a restricted SBG, the open SBG having no |
| 3 | access control, the restricted SBG having an access control to selected users. |
| | |
| 1 | 6. The method of claim 5 wherein creating one of an open SBG and a |
| 2 | restricted SBG comprises: |
| 3 | selecting at least an administrator to manage access to the restricted SBG and |
| 4 | control changes to the SBG network configuration. |
| 1 | 7. The method of claim 6 wherein advertising comprises: |
| 2 | selecting an advertising node according to a criteria within the SBG; |
| 3 | collecting information on the SBG; |

| 4 | periodically joining the WKG to broadcast the SBG information and to collect |
|---|--|
| 5 | information on the WKG or a nearby SBG; and |
| 6 | returning to the SBG to advertise the information collected on the WKG to SBG |
| 7 | members. |
| 1 | 8. The method of claim 1 further comprising: |
| 2 | joining the WKG according to user configuration. |
| 1 | 9. The method of claim 8 wherein joining the WKG comprises: |
| 2 | joining the SBG. |
| 1 | 10. The method of claim 1 further comprising: |
| 2 | partitioning one of the WKG and the SBG. |
| 1 | 11. The method of claim 1 further comprising: |
| 2 | merging the WKG to one other WKG; and |
| 3 | merging the SBG to one other SBG. |
| 1 | 12. The method of claim 1 further comprising: |
| 2 | enabling interaction among the unrelated mobile users within the WKG or the |
| 3 | SBG using the WKG interaction protocols or the SBG interaction protocols. |
| 1 | 13. The method of claim 12 wherein enabling interaction comprises: |
| 2 | managing an application; |
| 3 | discovering at least one of a host, an application, and a user profile; |
| 4 | managing distributed resource; and |
| 5 | managing group information. |
| 1 | 14. An article of manufacture comprising: |
| 2 | a machine-accessible medium including data that, when accessed by a machine, |
| 3 | causes the machine to perform operations comprising: |
| 4 | creating a session-based ad-hoc group (SBG) within a well-known ad-hoc group |
| 5 | (WKG) for impromptu interactions among unrelated mobile users, the WKG having a |
| 6 | WKG network configuration and a set of WKG interaction protocols, the SBG having |
| 7 | SBG network configuration and a set of SBG interaction protocols; and |
| 8 | advertising information pertaining to the SRG on the WKG |

| 1 | 15. The article of manufacture of claim 14 wherein the data causing the |
|---|--|
| 2 | machine to perform creating the WKG comprises data that, when accessed by the |
| 3 | machine, causes the machine to perform operations comprising: |
| 4 | obtaining the WKG network configuration and the set of WKG interaction |
| 5 | protocols to a general public. |
| 1 | 16. The article of manufacture of claim 15 wherein the data causing the |
| 2 | machine to perform obtaining the WKG network configuration and the set of WKG |
| 3 | interaction protocols comprises obtaining one of a pre-configuration on a retail device, |
| 4 | a downloadable client software, and a public advertisement. |
| 1 | 17. The article of manufacture of claim 14 wherein the WKG is one of an |
| 2 | open WKG and a restricted WKG, the open WKG having no access control, the |
| 3 | restricted WKG having an access control to selected users. |
| 1 | 18. The article of manufacture of claim 14 wherein the data causing the |
| 2 | machine to perform creating the SBG comprises data that, when accessed by the |
| 3 | machine, causes the machine to perform operations comprising: |
| 4 | creating one of an open SBG and a restricted SBG, the open SBG having no |
| 5 | access control, the restricted SBG having an access control to selected users. |
| 1 | 19. The article of manufacture of claim 18 wherein the data causing the |
| 2 | machine to perform creating one of an open SBG and a restricted SBG comprises data |
| 3 | that, when accessed by the machine, causes the machine to perform operations |
| 4 | comprising: |
| 5 | selecting at least an administrator to manage access to the restricted SBG and |
| 6 | control changes to the SBG network configuration. |
| 1 | 20. The article of manufacture of claim 19 wherein the data causing the |
| 2 | machine to perform advertising comprises data that, when accessed by the machine, |
| 3 | causes the machine to perform operations comprising: |
| 4 | selecting an advertising node according to a criteria within the SBG; |
| 5 | collecting information on the SBG; |

| 6 | periodically joining the WKG to broadcast the SBG information and to collect |
|---|---|
| 7 | information on the WKG or a nearby SBG; and |
| 8 | returning to the SBG to advertise the information collected on the WKG to SBG |
| 9 | members. |
| 1 | 21. The article of manufacture of claim 14 wherein the data further |
| 2 | comprises data that, when accessed by the machine, causes the machine to perform |
| 3 | operations comprising: |
| 4 | joining the WKG according to user configuration. |
| 1 | 22. The article of manufacture of claim 21 wherein the data causing the |
| 2 | machine to perform joining the WKG comprises data that, when accessed by the |
| 3 | machine, causes the machine to perform operations comprising: |
| 4 | joining the SBG. |
| 1 | 23. The article of manufacture of claim 14 wherein the data further |
| 2 | comprises data that, when accessed by the machine, causes the machine to perform |
| 3 | operations comprising: |
| 4 | partitioning one of the WKG and the SBG. |
| 1 | 24. The article of manufacture of claim 14 wherein the data further |
| 2 | comprises data that, when accessed by the machine, causes the machine to perform |
| 3 | operations comprising: |
| 4 | merging the WKG to one other WKG; and |
| 5 | merging the SBG to one other SBG. |
| 1 | 25. The article of manufacture of claim 14 wherein the data further |
| 2 | comprises data that, when accessed by the machine, causes the machine to perform |
| 3 | operations comprising: |
| 4 | enabling interaction among the unrelated mobile users within the WKG or the |
| 5 | SBG using the WKG interaction protocols or the SBG interaction protocols. |
| 1 | 26. The article of manufacture of claim 25 wherein wherein the data causing |
| 2 | the machine to perform enabling interaction comprises data that, when accessed by the |

machine, causes the machine to perform operations comprising:

3

| 4 | managing an application; |
|---|---|
| 5 | discovering at least one of a host, an application, and a user profile; |
| 6 | managing distributed resource; and |
| 7 | managing group information. |
| | |
| 1 | 27. A system comprising: |
| 2 | a well-known ad-hoc group (WKG) for impromptu interactions among |
| 3 | unrelated mobile users, the WKG having a WKG network configuration and a set of |
| 4 | WKG interaction protocols; and |
| 5 | a session-based ad-hoc group (SBG) within the WKG to allow a user to interact |
| 6 | with other mobile users, the SBG having SBG network configuration and a set of SBG |
| 7 | interaction protocols, the SBG advertising information pertaining to the SBG on the |
| 8 | WKG. |
| | |
| 1 | 28. The system of claim 27 wherein the WKG is an open or restricted WKG. |
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| 1 | 29. The system of claim 27 wherein the SBG is an open or restricted SBG. |
| 1 | 30. The system of claim 29 wherein the SBG has at least an administrator to |
| | |
| 2 | manage access to the restricted SBG and control changes to the SBG network |
| 3 | configuration. |